

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A machine-implemented method, comprising:

in response to an ending of execution of a first process that executed in a first virtual operating system environment (VOSE) of a plurality of VOSEs controlled by a single operating system kernel instance, a processor determining in which VOSE of the plurality of VOSEs the first process executed; and

in response to the processor determining that the first process executed in the first VOSE, recording, in a first system accounting log file (SALF) stored in a first file system partition associated with the first VOSE, first accounting information about the first process.
2. (Original) The method of claim 1, further comprising:

in response to determining that the first process executed in the first VOSE,

determining, based on first accounting settings that are associated with the first VOSE, one or more specified accounting information aspects of a plurality of accounting information aspects;

wherein recording the first accounting information comprises recording aspects of accounting information that correspond to the one or more specified accounting information aspects.

3. (Original) The method of claim 2, further comprising:

in response to an invocation of an accounting settings updating function by a second

process that is executing in the first VOSE, determining in which VOSE of the

plurality of VOSEs the second process is executing; and

in response to determining that the second process is executing in the first VOSE,

updating the first accounting settings;

wherein the accounting settings updating function is implemented by the operating

system kernel instance.
4. (Original) The method of claim 3, wherein processes that do not execute in the first
VOSE are prevented from updating the first accounting settings.
5. (Original) The method of claim 1, wherein the first SALF is not accessible by any
processes that execute in any VOSE other than the first VOSE.
6. (Original) The method of claim 1, further comprising:

in response to an ending of execution of a second process that executed in a second

VOSE of the plurality of VOSEs, determining in which VOSE of the plurality

of VOSEs the second process executed; and

in response to determining that the second process executed in the second VOSE,

recording, in a second SALF stored in a second file system partition associated

with the second VOSE, second accounting information about the second

process;

wherein the first VOSE is separate from the second VOSE.

7. (Original) The method of claim 6, further comprising:

in response to determining that the first process executed in the first VOSE,
determining, based on first accounting settings that are associated with the
first VOSE, one or more first specified accounting information aspects of a
plurality of accounting information aspects; and
in response to determining that the second process executed in the second VOSE,
determining, based on second accounting settings that are associated with the
second VOSE, one or more second specified accounting information aspects
of the plurality of accounting information aspects;
wherein recording the first accounting information comprises recording aspects of
accounting information that correspond to the one or more first specified
accounting information aspects;
wherein recording the second accounting information comprises recording aspects of
accounting information that correspond to the one or more second specified
accounting information aspects; and
wherein the one or more first specified accounting information aspects are separate
from the one or more second specified accounting information aspects.

8. (Currently Amended) The method of claim 7, further comprising:

in response to an invocation of an accounting settings updating function by a third
~~second~~ process that is executing in the first VOSE, determining in which
VOSE of the plurality of VOSEs the third process is executing;

- in response to determining that the third process is executing in the first VOSE,
updating the first accounting settings;
in response to an invocation of the accounting settings updating function by a fourth
process that is executing in the second VOSE, determining in which VOSE of
the plurality of VOSEs the fourth process is executing; and
in response to determining that the fourth process is executing in the second VOSE,
updating the second accounting settings;
wherein the accounting settings updating function is implemented by the operating
system kernel instance; and
wherein the first accounting settings are separate from the second accounting settings.
9. (Original) The method of claim 1, further comprising:
in response to the ending of execution of the first process, recording, in a second
SALF stored in a file system that is associated with a global operating system
environment (OSE) that comprises the plurality of VOSEs, second accounting
information about the first process;
wherein the second SALF is separate from the first SALF.
10. (Currently Amended) The method of claim 9, further comprising:
in response to determining that the first process executed in the first VOSE,
determining, based on first accounting settings that are associated with the
first VOSE, one or more first specified accounting information aspects of a
plurality of accounting information aspects; and

determining, based on second accounting settings that are associated with the global
OSE, one or more second specified accounting information aspects of the
plurality of accounting information aspects;
wherein recording the first accounting information comprises recording aspects of
accounting information that correspond to the one or more first specified
accounting information aspects;
wherein recording the second accounting information comprises recording aspects of
accounting information that correspond to the one or more second specified
accounting information aspects; [[and]]
wherein the one or more first specified accounting information aspects are separate
from the one or more second specified accounting information aspects;
in response to an invocation of an accounting settings updating function by a second
process that is executing in the first VOSE, determining in which of the global
OSE and the plurality of VOSEs the second process is executing;
in response to determining that the second process is executing in the first VOSE,
updating the first accounting settings;
in response to an invocation of the accounting settings updating function by a third
process that is executing in the global OSE, determining in which of the global
OSE and the plurality of VOSEs the third process is executing; and
in response to determining that the third process is executing in the global OSE,
updating the second accounting settings;
wherein the first accounting settings are separate from the second accounting settings;
and

wherein the accounting settings updating function is implemented by the operating system kernel instance.

11. (Canceled)
12. (Original) The method of claim 9, wherein the second accounting information indicates an identity of a VOSE in which the first process executed.
13. (Currently Amended) A volatile or non-volatile machine-readable storage medium, comprising:

instructions for causing one or more processors to determine, in response to an ending of execution of a first process that executed in a first virtual operating system environment (VOSE) of a plurality of VOSEs controlled by a single operating system kernel instance, in which VOSE of the plurality of VOSEs the first process executed; and

instructions for causing one or more processors to record, in response to determining that the first process executed in the first VOSE, in a first system accounting log file (SALF) stored in a first file system partition associated with the first VOSE, first accounting information about the first process.
14. (Currently Amended) The volatile or non-volatile machine-readable storage medium of claim 13, further comprising:

instructions for causing one or more processors to determine, based on first accounting settings that are associated with the first VOSE, in response to determining that the first process executed in the first VOSE, one or more

specified accounting information aspects of a plurality of accounting
information aspects;

wherein the instructions for causing one or more processors to record the first
accounting information comprise instructions for causing one or more
processors to record aspects of accounting information that correspond to the
one or more specified accounting information aspects.

15. (Currently Amended) The volatile or non-volatile machine-readable storage medium
of claim 14, further comprising:

instructions for causing one or more processors to determine, in response to an
invocation of an accounting settings updating function by a second process
that is executing in the first VOSE, in which VOSE of the plurality of VOSEs
the second process is executing; and
instructions for causing one or more processors to update, in response to determining
that the second process is executing in the first VOSE, the first accounting
settings;
wherein the accounting settings updating function is implemented by the operating
system kernel instance.

16. (Currently Amended) The volatile or non-volatile machine-readable storage medium
of claim 15, wherein processes that do not execute in the first VOSE are prevented
from updating the first accounting settings.

17. (Currently Amended) The volatile or non-volatile machine-readable storage medium of claim 13, wherein the first SALF is not accessible by any processes that execute in any VOSE other than the first VOSE.
18. (Currently Amended) The volatile or non-volatile machine-readable storage medium of claim 13, further comprising:

instructions for causing one or more processors to determine, in response to an ending of execution of a second process that executed in a second VOSE of the plurality of VOSEs, in which VOSE of the plurality of VOSEs the second process executed; and

instructions for causing one or more processors to record, in response to determining that the second process executed in the second VOSE, in a second SALF stored in a second file system partition associated with the second VOSE, second accounting information about the second process;

wherein the first VOSE is separate from the second VOSE.
19. (Currently Amended) The volatile or non-volatile machine-readable storage medium of claim 18, further comprising:

instructions for causing one or more processors to determine, based on first accounting settings that are associated with the first VOSE, in response to determining that the first process executed in the first VOSE, one or more first specified accounting information aspects of a plurality of accounting information aspects; and

instructions for causing one or more processors to determine, based on second accounting settings that are associated with the second VOSE, in response to determining that the second process executed in the second VOSE, one or more second specified accounting information aspects of the plurality of accounting information aspects;

wherein the instructions for causing one or more processors to record the first accounting information comprise instructions for causing one or more processors to record aspects of accounting information that correspond to the one or more first specified accounting information aspects;

wherein the instructions for causing one or more processors to record the second accounting information comprise instructions for causing one or more processors to record aspects of accounting information that correspond to the one or more second specified accounting information aspects; [[and]]

wherein the one or more first specified accounting information aspects are separate from the one or more second specified accounting information aspects;

instructions for causing one or more processors to determine, in response to an invocation of an accounting settings updating function by third process that is executing in the first VOSE, in which VOSE of the plurality of VOSEs the third process is executing;

instructions for causing one or more processors to update, in response to determining that the third process is executing in the first VOSE, the first accounting settings;

instructions for causing one or more processors to determine, in response to an invocation of the accounting settings updating function by a fourth process that is executing in the second VOSE, in which VOSE of the plurality of VOSEs the fourth process is executing; and instructions for causing one or more processors to update, in response to determining that the fourth process is executing in the second VOSE, the second accounting settings;
wherein the accounting settings updating function is implemented by the operating system kernel instance; and
wherein the first accounting settings are separate from the second accounting settings.

20. (Canceled)

21. (Currently Amended) The volatile or non-volatile machine-readable storage medium of claim 13, further comprising:
instructions for causing one or more processors to record, in response to the ending of execution of the first process, in a second SALF stored in a file system that is associated with a global operating system environment (OSE) that comprises the plurality of VOSEs, second accounting information about the first process;
wherein the second SALF is separate from the first SALF.

22. (Currently Amended) The volatile or non-volatile machine-readable storage medium of claim 21, further comprising:
instructions for causing one or more processors to determine, based on first accounting settings that are associated with the first VOSE, in response to

determining that the first process executed in the first VOSE, one or more first specified accounting information aspects of a plurality of accounting information aspects; and

instructions for causing one or more processors to determine, based on second accounting settings that are associated with the global OSE, one or more second specified accounting information aspects of the plurality of accounting information aspects;

wherein the instructions for causing one or more processors to record the first accounting information comprise instructions for causing one or more processors to record aspects of accounting information that correspond to the one or more first specified accounting information aspects;

wherein the instructions for causing one or more processors to record the second accounting information comprise instructions for causing one or more processors to record aspects of accounting information that correspond to the one or more second specified accounting information aspects; and

wherein the one or more first specified accounting information aspects are separate from the one or more second specified accounting information aspects.

23. (Currently Amended) The volatile or non-volatile machine-readable storage medium of claim 22, further comprising:
- instructions for causing one or more processors to determine, in response to an invocation of an accounting settings updating function by a second process

that is executing in the first VOSE, in which of the global OSE and the plurality of VOSEs the second process is executing;

instructions for causing one or more processors to update, in response to determining that the second process is executing in the first VOSE, the first accounting settings;

instructions for causing one or more processors to determine, in response to an invocation of the accounting settings updating function by a third process that is executing in the global OSE, in which of the global OSE and the plurality of VOSEs the third process is executing; and

instructions for causing one or more processors to update, in response to determining that the third process is executing in the global OSE, the second accounting settings;

wherein the first accounting settings are separate from the second accounting settings; and

wherein the accounting settings updating function is implemented by the operating system kernel instance.

24. (Currently Amended) The volatile or non-volatile machine-readable storage medium of claim 21, wherein the second accounting information indicates an identity of a VOSE in which the first process executed.

25. (Currently Amended) An apparatus, comprising:
a processor mechanism for determining, in response to an ending of execution of a first process that executed in a first virtual operating system environment

(VOSE) of a plurality of VOSEs controlled by a single operating system kernel instance, in which VOSE of the plurality of VOSEs the first process executed; and

a memory mechanism for recording, in response to determining that the first process executed in the first VOSE, in a first system accounting log file (SALF) stored in a first file system partition associated with the first VOSE, first accounting information about the first process.

26. (Original) The apparatus of claim 25, further comprising:

a mechanism for determining, based on first accounting settings that are associated with the first VOSE, in response to determining that the first process executed in the first VOSE, one or more specified accounting information aspects of a plurality of accounting information aspects;

wherein the mechanism for recording the first accounting information comprises a mechanism for recording aspects of accounting information that correspond to the one or more specified accounting information aspects.

27. (Original) The apparatus of claim 26, further comprising:

a mechanism for determining, in response to an invocation of an accounting settings updating function by a second process that is executing in the first VOSE, in which VOSE of the plurality of VOSEs the second process is executing; and a mechanism for updating, in response to determining that the second process is executing in the first VOSE, the first accounting settings;

wherein the accounting settings updating function is implemented by the operating system kernel instance.

28. (Original) The apparatus of claim 27, wherein processes that do not execute in the first VOSE are prevented from updating the first accounting settings.
29. (Original) The apparatus of claim 25, wherein the first SALF is not accessible by any processes that execute in any VOSE other than the first VOSE.
30. (Original) The apparatus of claim 25, further comprising:
a mechanism for determining, in response to an ending of execution of a second process that executed in a second VOSE of the plurality of VOSEs, in which VOSE of the plurality of VOSEs the second process executed; and
a mechanism for recording, in response to determining that the second process executed in the second VOSE, in a second SALF stored in a second file system partition associated with the second VOSE, second accounting information about the second process;
wherein the first VOSE is separate from the second VOSE.
31. (Original) The apparatus of claim 30, further comprising:
a mechanism for determining, based on first accounting settings that are associated with the first VOSE, in response to determining that the first process executed in the first VOSE, determining one or more first specified accounting information aspects of a plurality of accounting information aspects; and

a mechanism for determining, based on second accounting settings that are associated with the second VOSE, in response to determining that the second process executed in the second VOSE, one or more second specified accounting information aspects of the plurality of accounting information aspects; wherein the mechanism for recording the first accounting information comprises a mechanism for recording aspects of accounting information that correspond to the one or more first specified accounting information aspects; wherein the mechanism for recording the second accounting information comprises a mechanism for recording aspects of accounting information that correspond to the one or more second specified accounting information aspects; and wherein the one or more first specified accounting information aspects are separate from the one or more second specified accounting information aspects.

32. (Currently Amended) The apparatus of claim 31, further comprising:

a mechanism for determining, in response to an invocation of an accounting settings updating function by a third ~~second~~ process that is executing in the first VOSE, in which VOSE of the plurality of VOSEs the third process is executing;

a mechanism for updating, in response to determining that the third process is executing in the first VOSE, the first accounting settings;

a mechanism for determining, in response to an invocation of the accounting settings updating function by a fourth process that is executing in the second VOSE, in which VOSE of the plurality of VOSEs the fourth process is executing; and

- a mechanism for updating, in response to determining that the fourth process is
executing in the second VOSE, the second accounting settings;
wherein the accounting settings updating function is implemented by the operating
system kernel instance; and
wherein the first accounting settings are separate from the second accounting settings.
33. (Original) The apparatus of claim 25, further comprising:
a mechanism for recording, in response to the ending of execution of the first process,
in a second SALF stored in a file system that is associated with a global
operating system environment (OSE) that comprises the plurality of VOSEs,
second accounting information about the first process;
wherein the second SALF is separate from the first SALF.
34. (Currently Amended) The apparatus of claim 33, further comprising:
a mechanism for determining, based on first accounting settings that are associated
with the first VOSE, in response to determining that the first process executed
in the first VOSE, one or more first specified accounting information aspects
of a plurality of accounting information aspects; and
a mechanism for determining, based on second accounting settings that are associated
with the global OSE, one or more second specified accounting information
aspects of the plurality of accounting information aspects;
wherein the mechanism for recording the first accounting information comprises a
mechanism for recording aspects of accounting information that correspond to
the one or more first specified accounting information aspects;

wherein the mechanism for recording the second accounting information comprises a
mechanism for recording aspects of accounting information that correspond to
the one or more second specified accounting information aspects; [[and]]
wherein the one or more first specified accounting information aspects are separate
from the one or more second specified accounting information aspects;
a mechanism for updating, in response to an invocation of an accounting settings
updating function by a second process that is executing in the first VOSE, in
which of the global OSE and the plurality of VOSEs the second process is
executing;
a mechanism for updating, in response to determining that the second process is
executing in the first VOSE, the first accounting settings;
a mechanism for determining, in response to an invocation of the accounting settings
updating function by a third process that is executing in the global OSE, in
which of the global OSE and the plurality of VOSEs the third process is
executing; and
a mechanism for updating, in response to determining that the third process is
executing in the global OSE, the second accounting settings;
wherein the first accounting settings are separate from the second accounting settings;
and
wherein the accounting settings updating function is implemented by the operating
system kernel instance.

35. (Canceled)

- 36. (Original) The apparatus of claim 33, wherein the second accounting information indicates an identity of a VOSE in which the first process executed.
- 37. (New) The method of claim 1, wherein the operating system kernel instance exists in a global zone that contains the plurality of VOSEs, and wherein the operating system kernel instance determines in which VOSE of the plurality of VOSES the first process executed in response to the first process invoking an exit function of the operating system kernel instance.
- 38. (New) The volatile or non-volatile machine-readable storage medium of claim 13, wherein the operating system kernel instance exists in a global zone that contains the plurality of VOSEs, and wherein the operating system kernel instance determines in which VOSE of the plurality of VOSES the first process executed in response to the first process invoking an exit function of the operating system kernel instance.
- 39. (New) The apparatus of claim 25, wherein the operating system kernel instance exists in a global zone that contains the plurality of VOSEs, and wherein the operating system kernel instance determines in which VOSE of the plurality of VOSES the first process executed in response to the first process invoking an exit function of the operating system kernel instance.